
Goddard Space Flight Center

**Implementing NASA's Strategies for
the 21st Century**



October 1998

Note from the Director:

With this reissuance of the Strategic Implementation Plan that was first published in 1997, the Center is confirming its continued commitment to the vision, mission, and strategies articulated in this Plan. The Plan is unchanged in content except for one notable exception: Goddard performance goals, which are derived from the NASA Strategic Plan and the annual NASA Performance Plan, are enclosed in the front pocket of this Plan. This enclosure will be updated annually.

Since the Plan was first published, we have begun to make a number of the changes that are necessary for the Center to fully realize the goals we have established. While continuing to meet our program and project commitments with outstanding results, we have also positioned ourselves for the future through organizational changes that will permit us to better compete for new business and to quickly align the Center's resources to do our customers' work. We have also taken steps to align our rewards system with the values we believe are essential to our success in the 21st century.

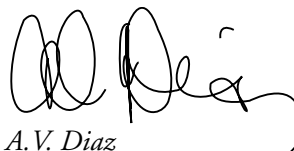
Through your feedback in the Center's culture survey, we better understand the challenges of communicating the reasons for such changes, as well as the need to provide clear guidance through operational plans and to align resources and actions with the goals to which we have committed. "Project Goddard" has been established to address these needs. It will define the specific actions and changes we must make to meet the mission objectives we are tasked to perform now and in the future.

As we work together to achieve these actions, we have additional responsibilities to ourselves and the public. First, we must serve as public stewards of the human and other resources that have been entrusted to us. Part of this stewardship is a commitment to safety by protecting the safety and well being of all employees, as well as those who may be affected by Goddard's programs and activities. This commit-

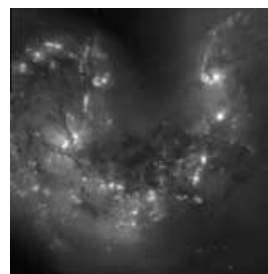
ment to safety must be inherent in all that we do. Secondly, we have a responsibility to protect and maximize the use of all the resources with which we have been entrusted, whether they are Center's facilities and equipment, the spacecraft we operate, or the projects we perform.

Meeting commitments and being responsive to our customers' requirements is more important than ever. The Government Performance and Results Act requires that agencies identify their performance goals as part of their annual budget submissions. The degree to which these goals are linked to an agency's mission and the level of success that an agency has in meeting its performance goals will have a direct impact on what that agency's future budget will be.

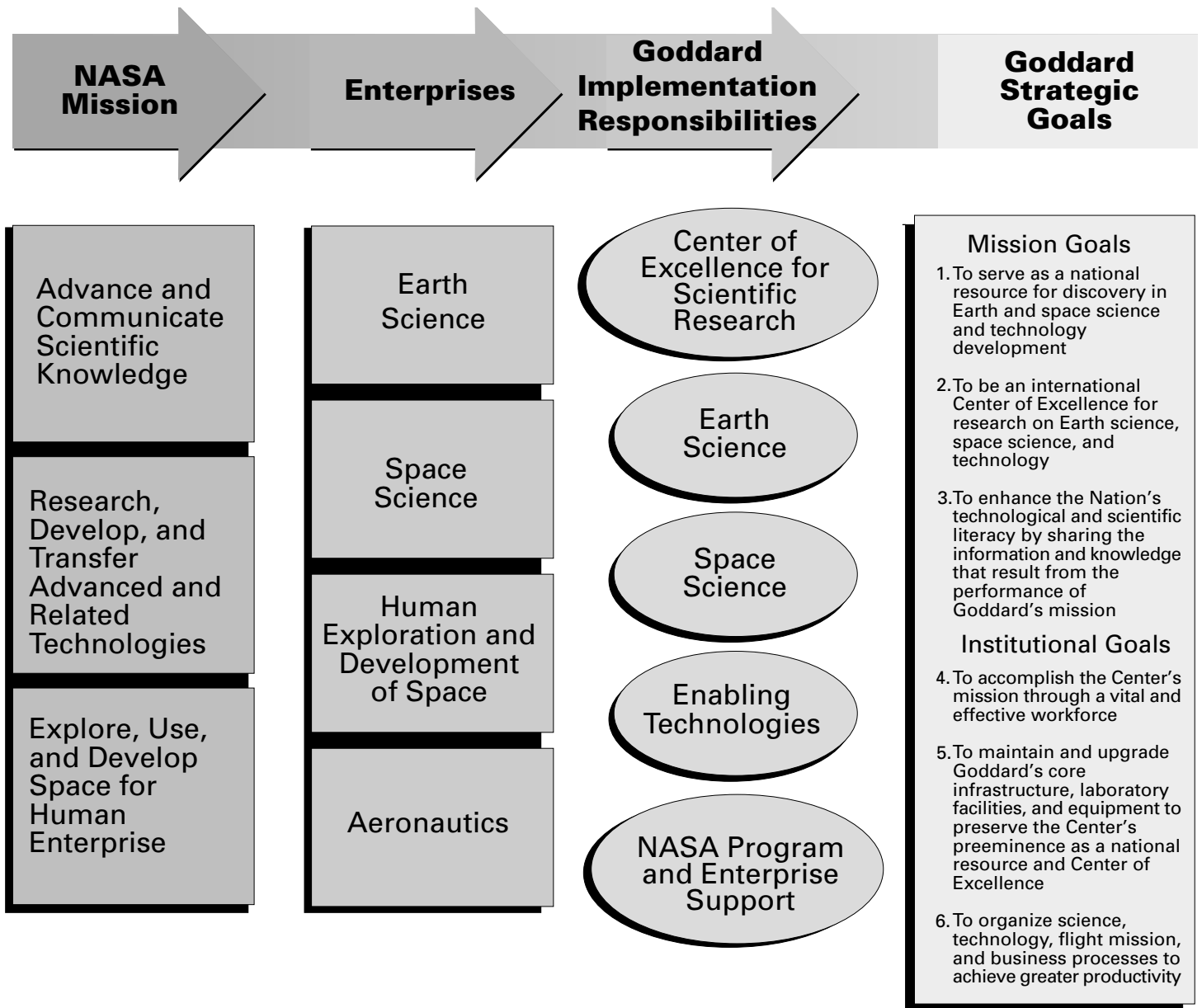
To support NASA in achieving its performance targets, Goddard has established its Performance Plan for FY99. It identifies Goddard's responsibilities and goals in meeting Enterprise and Crosscutting Performance Targets. It is essential that each organization and each employee align their work to support the accomplishment of these goals and that we continue to work together to realize the Center's vision to *"revolutionize knowledge of the Earth and the universe through scientific discovery from space to enhance life on Earth."*



A. V. Diaz
Center Director
October 1998



Framework for Implementing NASA's Strategies for the 21st Century



Areas of Responsibility

Goddard's overall mission falls into three major areas of responsibility:

Earth Science

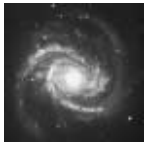


Goddard Space Flight Center plays a major role in the new interdisciplinary field of Earth System Science.

Goddard will work with our customers and partners to identify and develop, faster and at less cost, the technology needs for advanced Earth science sensors.

Research in this area will advance understanding of the Earth as an environmental system by determining how its components have developed, how they function, how they interact with one another, and how they evolve on various time scales. This will enable scientists to quantify the practical impacts that both natural and human activities will have on the Earth's resources during the next decade and over the next century.

Space Science



Goddard is dedicated to leading the space science community in space-based physics and astronomy and to creating opportunities for conducting research through a broad variety of flight opportunities. We promote the development of advanced technology designed to enhance scientific capabilities at an affordable cost.

In collaboration with our customers and partners worldwide, Goddard will continue to seek answers about how the universe formed, what it is made of, how its components interact, and how it evolves. The Center also will contribute to the quest to learn how stars and their planetary systems form and evolve. We will continue to take part in determining the nature of the Sun's interaction with its surroundings. Similarly, we will work with others to discover the properties of interplanetary space as well as the plasma environments of the planets.

Technology



Goddard is committed to the development and infusion of cutting-edge technology to increase mission performance and capabilities while reducing the costs of performing scientific measurements from space. The Center provides Agency leadership to advance next-generation spacecraft, sensor, and instrument technology. This leadership will result in advanced Earth-observing satellites and space science missions at reduced costs.

By creating and maintaining synergy among the science, engineering, and project management disciplines, the Center will ensure the maximum return on its technology investment.

Goddard plans and coordinates technological research and development both within the Center and with external partners and serves as a catalyst for forming teams among academic, Government, and commercial concerns to draw on the best capabilities of each in developing new technologies. We also transfer the technology that is developed to the private sector to strengthen the national economy.

Goddard has responsibilities in other areas as well.

Support for Other NASA Programs and Enterprises

The Center supports NASA programs and Enterprise customers in a number of areas. For example, we provide space communications support for the Shuttle Program, ground communications and launch range support for all NASA missions, and assist NASA Headquarters with various business functions.



Vision

Shared image of the organization's future.

We revolutionize knowledge of the Earth and the universe through scientific discovery from space to enhance life on Earth.

Mission

Why Goddard exists: what we do, who our primary customers are, and the principal strategies by which we will operate.

Goddard Space Flight Center enables discovery through leadership in Earth and space science.

We serve the scientific community, inspire the Nation, foster education, and stimulate economic growth.

We partner with others to achieve NASA's goals.

We create technologies that support and advance these endeavors to take full advantage of doing research in space.

We accomplish this through innovation in all that we do.

Values

The guiding principles that determine the culture, set the context in which decisions are made, and are the standards for our actions.

Agility

Anticipating the future, leading change, and adapting quickly are crucial to thriving in a dynamic environment.

Balance

An employee's work life and personal life, including health, family, community involvement, and other interests, contribute to the vitality both of the individual and of the Center.

Creativity

Freedom to explore new ideas stimulates discovery, fosters innovation, and leads to more effective ways of doing work.

Dedication

Successful results require a commitment to excellence and to individual and team responsibilities.

Integrity

Trust, fairness, honesty, and accountability for our actions are the cornerstones of personal and organizational integrity.

Respect

Diversity among people and their ideas is an inherent strength as we work toward fulfilling Goddard's mission.

Teamwork

Accomplishments result from successful teams, both internal and external to the Center, that capitalize on the strengths and contributions of every team member.

Mission Strategy

Ongoing work and new initiatives at Goddard Space Flight Center should all be aligned with the Center's mission.

These questions provide guidance for determining new Center initiatives and for determining the scope of existing work.

Relevance

- Is this work in alignment with the NASA Strategic Plan and the Enterprises that the Center supports?
- Does this work help achieve the vision and the mission of the Center?
- Is this work included in one of the Center's areas of responsibility?
- Does the work maintain the appropriate balance between near-term goals (up to 10 years) and the work necessary to meet the grand scientific challenges that are a decade or more in the future?

Center Capabilities

- Does the Center offer a unique capability to support this work and to deliver the required product, and is there no other source from which to obtain it?
- Does Goddard have a leadership role in this kind of work, and are there few outside sources that can support it?
- Is it the kind of high-risk, state-of-the-art work the Center should be pursuing?
- Does the capability to do the work position the Center to obtain future work in alignment with Goddard's mission and this Implementation Plan?

Resources

- Are resources — for example, space, personnel, facilities, and equipment — available within Goddard or with partners to perform this work in a cost-effective manner?
- Is the new work the most cost-effective option for accomplishing a goal within schedule and with a high probability of success?
- Will the new work fully pay for itself?
- Will partnerships or other funding options reduce NASA's funding requirements?

Assignment

- Has this work been assigned to Goddard by the Agency?

Program Goals, Strategies, and Objectives

Six Centerwide goals and supporting strategies guide Goddard in fulfilling its mission and responsibilities as assigned by NASA. These goals and strategies linked together with the NASA Strategic Plan, Enterprise Plans, and the Agency Performance Plan, form the framework for the Center's annual goals, performance targets, and actions.

Implementation Plan: Program Goals

Goal 1 To serve as a national resource for discovery in Earth and space science and technology development.

Strategy 1:

Provide customer-centered leadership to implement the goals of NASA’s Space Science and Mission to Planet Earth Enterprises.

Objective 1:

To work in partnership with NASA Headquarters and the scientific community to define the goals and essential measurements for addressing the next generation of Earth and space science questions.

Objective 2:

To establish partnerships with industry, academia, and the international scientific community in order to concentrate the best available resources on doing the science and developing the technology that will lead to new discoveries.

Objective 3:

To make data and new knowledge widely accessible to the scientific community.

Strategy 2:

In support of the Nation’s science and technology goals, use the Center’s capabilities for roles it is uniquely able to perform as a Federal laboratory.

Objective 1:

To provide increased opportunities for scientists to make new measurements by increasing flight opportunities across a wide range of instrument platforms.

Objective 2:

To perform the long-term scientific and technological research that makes breakthrough discoveries possible.

Objective 3:

To provide access to the Center’s institutional capabilities, including facilities, equipment, and expertise in science, technology, and project management in order to support and build the abilities of the scientific and supporting technical communities.

Objective 4:

To transfer new knowledge and technology to industry.

Goal 2 To be an international Center of Excellence for research in Earth science, space science, and technology.

<p>Strategy 1:</p> <p>Create and sustain a creative, outward-focused environment that encourages the interchange of ideas.</p>	<p>Objective 1:</p> <p>To establish value-added partnerships and collaborations in order to optimize capabilities to achieve the Center’s mission.</p> <p>Objective 2:</p> <p>To systematically assess the quality and value of Goddard’s contributions in research and leadership through customer, peer, and other external input and to use the results of these assessments to target areas for improvement.</p>
<p>Strategy 2:</p> <p>Ensure that the Center has the resources, experience, competence, and capabilities to perform world-class science, technology development, and engineering in its core areas of responsibility.</p>	<p>Objective 1:</p> <p>To assemble and sustain the best possible workforce of scientists, engineers, and technologists.</p> <p>Objective 2:</p> <p>To provide the state-of-the-art facilities and equipment it takes to perform cutting-edge research.</p> <p>Objective 3:</p> <p>To advance the Center’s research capabilities through challenging, hands-on work.</p>
<p>Strategy 3:</p> <p>Use the Center’s expertise in program leadership and project management to set the benchmarks for mission, schedule, and cost performance in meeting customer requirements.</p>	<p>Objective 1:</p> <p>To perform cutting-edge research and development of instruments, spacecraft, ground-support technologies, and information management systems to conduct science missions with increased performance at reduced cost.</p> <p>Objective 2:</p> <p>To accept the responsibilities and risks of infusing cutting-edge technologies.</p> <p>Objective 3:</p> <p>To employ innovative practices in program and project management.</p>

Goal 3 To enhance the Nation's technological and scientific literacy by sharing the information and knowledge that result from the performance of Goddard's mission.

Strategy 1:

Use the full scope of the Center's capabilities to communicate the content, relevance, and excitement of scientific and technical knowledge and discovery to the education community and to the public at large.

Objective 1:

To develop Center capabilities to communicate Goddard's mission activities and results.

Objective 2:

To provide employees with the guidance, resources, opportunities, and incentives to be active and effective in sharing knowledge and discoveries.

Objective 3:

To make specific education and public information initiatives part of each science and technology program.

Objective 4:

To create wide-ranging partnerships to broaden the scope of the Center's communication initiatives.

Strategy 2:

Working within NASA's Education Strategic Plan, address the needs of the education community by translating the Center's science, engineering, mathematics, and technology knowledge for use with the national education standards for curriculum support, faculty enhancement, student support, and technology applications.

Objective 1:

To work with external organizations and partners to develop educational programs and products that contribute to a systemic approach in meeting national education standards.

Objective 2:

To develop broad-based education programs aimed at raising scientific and technical understanding at all education levels.

Strategy 3:

Explain the nature and convey the excitement and relevance of NASA's mission and Goddard's contributions to scientific discoveries and technology developments to the public in a manner appropriate to each audience segment.

Objective 1:

To provide easy public and media access to mission information.

Objective 2:

To partner with others in the science and aerospace communities to develop a coherent picture of the role of science and technology in society today and in the future.

Institutional Goals

Goal 4 To accomplish the Center’s mission through a vital and effective workforce.

Strategy 1:

Ensure that all employees understand Goddard’s values, their individual roles and contributions in achieving the Center’s goals, and how their work fits into NASA’s overall mission.

Objective 1:

To communicate the purpose and content of this Plan to every employee.

Objective 2:

To involve every employee in developing work plans to fulfill the Center’s mission.

Strategy 2:

Involve employees in the creation of a work environment conducive to their best performance according to the Center’s values and goals.

Objective 1:

To foster an organizational climate where employee diversity and mutual respect are catalysts for creativity and team effectiveness.

Objective 2:

To align reward, recognition, and performance systems with the Center’s values and goals.

Objective 3:

To provide both employees and managers work time and opportunities for appropriate training, improving work processes, and performing outreach activities.

Strategy 3:

Acquire and sustain a vital and effective workforce.

Objective 1:

To recruit the best employees, while maintaining balance in the experience levels of new hires and enhancing the Center’s diversity.

Objective 2:

To make a commitment of management and resources to ensure that employees receive the training, developmental experiences, and tools they need to attain the highest levels of professional excellence and personal growth in order to perform the Center’s mission.

Objective 3:

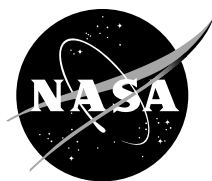
To create a climate that provides employees the opportunity to maintain a productive balance between personal and professional responsibilities.

Goal 5 To maintain and upgrade Goddard’s core infrastructure, laboratory facilities, and equipment to preserve the Center’s preeminence as a national resource and Center of Excellence.

<p>Strategy 1:</p> <p>Focus facility resources on those capabilities that contribute the most toward meeting Goddard’s goals as a national resource and Center of Excellence.</p>	<p>Objective 1:</p> <p>To define the facility requirements and acquire the resources needed to enhance Goddard’s state-of-the-art capabilities.</p> <p>Objective 2:</p> <p>To reduce the Center’s overall infrastructure costs by closing excess facilities or by converting them to other uses.</p> <p>Objective 3:</p> <p>To use external facilities when they have capabilities that are not currently available at Goddard or when they provide a cost-effective alternative.</p>
<p>Strategy 2:</p> <p>Maximize productivity by making sure employees have the tools and equipment they need to do their best work.</p>	<p>Objective 1:</p> <p>To budget for and acquire the necessary tools and equipment to improve productivity.</p> <p>Objective 2:</p> <p>To reduce costs and development time by using off-the-shelf products where appropriate.</p>

Goal 6 To organize science, technology, flight mission, and business processes to achieve greater productivity.

Strategy 1: Create an effective organization for carrying out the Center's science and technology mission.	Objective 1: To eliminate non-value-added activities from functions and organizational units.
Strategy 2: Systematically improve the Center's work processes.	Objective 1: To identify, prioritize, and streamline the Center's core science, engineering, project management, and quality processes. Objective 2: To identify, prioritize, and streamline the Center's human resource and business processes.
Strategy 3: Create a management and full-cost information structure to facilitate strategic management of programs, processes, and resources.	Objective 1: To provide new business opportunities that provide high-quality work in Earth science, space science, and technology. Objective 2: To establish near- and long-term overhead targets for reducing infrastructure costs. Objective 3: To align and integrate operational, institutional, technical, and scientific activities with NASA planning and budget cycles.



National Aeronautics and Space Administration
Goddard Space Flight Center